ADB TA NO. 2740-IND
Review of Electricity Legislation and Regulations in Gujarat

Report on the Study Tour
to
USA, UK and France

Submitted to
Asian Development Bank
Manila

Tata Energy Research Institute
New Delhi

April 1998

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INTRODUCTION

As per provisions of the TOR and as proposed in the Inception Report a study tour was conducted for 3 GOG/GEB officers to USA, UK and France during 6th-19th November, 1997. The team comprised of Dr P K Mishra, Member (Finance) GEB, Mr P B Oza, Superintending Engineer (Commercial) GEB and Mr R P Gupta, Deputy Secretary, GOG. Mr K Ramanathan from TERI accompanied the team. The purpose of these tours was to have discussions with key officials dealing with the power sector including regulations in these countries.

The three countries were chosen in consultation with ADB keeping in view the widely different structure of the electricity industry and regulating mechanisms in these countries. While in the UK the entire industry is unbundled and privatised, in France it is fully integrated and is in the public sector. In USA there are different levels of restructuring in the different States and there are two hierarchical levels in the regulatory set up. The visit to these three countries was, therefore, expected to provide an opportunity to gain first hand information on different reform models. In the case of France, it was also of special interest to learn how this country is trying to comply with the European Directive relating to competition and opening up the sector.

The itinerary for the tour was finalised keeping in view the logistics of travel, convenience of the organisations to be visited and the time schedule provided for the study tour in the contract. The TERI office in Washington (TERI-NA), the Department of Trade and Industry, UK and Electricite de France, France helped in tying up the visits.

The detailed write-ups on the sectoral reforms and regulatory set up in different countries included in Volume II of the Inception Report served as useful briefing material for the officers.

A visit was also organized to Orissa prior to the foreign tour to learn about the Indian experience in the power sector reforms.

The list of officials in these organizations with whom the study team could interact is given in Annexure I.

VISIT TO ORISSA

Orissa is the first state in India, which decided to restructure and substantially privatize its power sector. In Orissa, the government's ultimate objective is to withdraw from the power sector as an operator of utilities and have competing, privately managed utilities operating in an appropriately-regulated power market. Orissa's power sector reform program involves: (a) the unbundling and structural separation of generation, transmission, and distribution into separate services to be provided by separate companies; (b) private sector participation in the new hydroelectric generation and transmission utilities, the Grid Corporation of Orissa (GRIDCO), the Orissa Power Generation Corporation (OPGC) and the Orissa Hydro Power Corporation (OHPC), (c) privatization of thermal generation and distribution; (d) competitive bidding for new generation; (e) the development of an autonomous power sector regulatory agency, the Orissa Electricity Regulatory Commission (OERC); and (f) reforming of electricity tariffs at the bulk power, transmission, and retail levels.

The team had discussions with key officials of Orissa Electricity Regulatory Commission (OERC) and the Grid Corporation of Orissa (GRIDCO) at Bhubaneswar during 21-22 October, 1997.

Visit to OERC

At OERC the team had a joint meeting with the members of the Commission. To start with a brief overview of the new structure of the electricity supply industry in Orissa including the organizational set up and role of OERC was presented. The following points were noted in this context.

> The New legislation, the Orissa Electricity Reform Act, 1995 (Orissa Act 2 of 1996), was enacted to: (a) establish in law a state-level regulatory commission (OERC) independent of the state government and power utilities; (b) effect the asset, liability and staff transfers from the Orissa government and OSEB to GRIDCO, OPGC and OHPC; and (c) transfer the statutory duties allocated to OSEB under the 1948 Electricity (Supply) Act (including the basic obligation to serve) to the OERC, GRIDCO, and the distributors. The Act was passed by the State Assembly in November 1995, notified in the Official Gazette in January 1996 and became effective on April 1, 1996.
>
> The Orissa Electricity Regulatory Commission is functioning as an autonomous authority responsible for the regulation of the power sector. The structure selected for the Regulatory Commission is a three-member commission with necessary support staff. While the Commission can appoint its own staff, their number and pay scales are to be approved by the government. According to the members, the Commission has enough independence at present. Its annual expenditure is at present of the order of Rs 1.5 crores and this is charged to the consolidated funds of the government.
>
> The objective of OERC is to help ensure the operational, managerial and financial autonomy of the new utilities in Orissa's power sector, to promote transparency, efficiency and economy, and to help Orissa attract private capital for power sector development while safeguarding the interests of consumers. Its functioning is technical and judicial in nature.
>
> From April 1, 1996 hydroelectric and thermal stations owned and run by the Orissa government and OSEB were transferred to OHPC and OPGC respectively as per the Orissa government's transfer order under the new Act.

The sale of Talcher, OSEB's only existing thermal station, to NTPC was approved in June 1995. OPGC's Ib units 1-2 are to be privatized, most likely through the sale of the majority of OPGC's shares to private investors. OHPC and individual private generating companies will function as generating companies under the 1948 Electricity (Supply) Act. GRIDCO is responsible for transmission, coordination of system planning and operations and initially, distribution and bulk power procurement, from April 1, 1996 as per the Orissa government's transfer order under the New Act. GRIDCO is also the main executing agency of investments supported under the proposed project. Distribution privatization is a key feature of the reform program. GRIDCO will gradually transfer its distribution system to private distribution companies in accordance with a privatization program being laid out by World Bank.

While generation is not a licensed activity, transmission and distribution are licensed. The Commission has issued licenses for (a) transmission and bulk supply an (b) distribution and retail supply to GRIDCO. It had its first tariff hearing in early 1997 and issued an order on tariff for all types of consumers in Orissa effective from 1st April, 1997. The tariff filing exercise has brought out the high level of losses in the system (of the order of 47%) which was not transparent earlier. The Commission has linked the tariff to reduction of losses to 38%. It has also issued orders on review of applications relating to transmission tariff.

The Commission has issued regulations for conduct of its proceedings and discharge of its functions. It has conducted proceedings and issued orders giving consent to set up captive power plants. It has also granted permission to an existing captive power plant for third party (other industries) sale of power.

The Commission has issued permission in over 55 cases under Section 44 of E (S) Act 1948 to start generating stations. Further it scrutinised and issued orders on Power Purchase Agreements. It has also issued observations on the load forecast for the year 2005.

The Commission has started proceedings on selected consumer complaints regarding consumer service. In fact, the expectations of the consumers have gone up after the establishment of the OERC.

Generation business is not subject to direct regulation since it is (a) non-monopolistic activity and (b) there is no direct contact with the consumers. However, purchases by GRIDCO from different generation entities should have the approval of the Commission.

The desirability of having legal experts as Chairman and members of the commission was discussed. In this context, the members opined that they do not subscribe to the idea of making it mandatory that the Chairman should be a retired judge. OERC has appointed a former District Judge as Secretary and this is found to be satisfactory.

- The Commission's immediate programme of action includes approval of grid code, approval of distribution code, formulating a consumer grievance redressal machinery for GRIDCO, developing a regulatory MIS, issue of a consumer rights statement, formulation of methodology for fixing transmission tariff, approval of planning and security standards, power supply, planning and security standards, operating standards and power supply operative standards, inquiry proceeding on Gridco's proposal on minimum charges in case of supplies with no meters or defective meters, and inquiry proceeding on supply position at selected areas.

- Some of the important issues before the commission are formulation of tariff Policy and strategy for its implementation (which include rationalization of tariff by reducing number of categories and grouping them on consideration of voltage of supply rather than on user consideration, linking tariff to performance and efficiency and gradual elimination of intra-class subsidy/cross subsidy), enforcing demand side management, ensuring planning and implementation of a programme for reducing T&D loss, framing regulations for processing and approval of (a) permission to set up CPP (b) third party sale of power, and (c) exemption from the requirement to have a license, establishing procedure for scrutiny and approval of Power Purchase Agreements, establishing procedure and machinery for enforcement of license conditions, formulating perspective plans for promotion of generation, transmission and supply of electricity, and formulating response to the privatization and restructuring programmes for transmission and distribution.

Visit to GRIDCO

A gist of the discussions held with key officials of GRIDCO is given below:

- Presently, GRIDCO possesses the transmission and distribution license. It purchases power from generating companies under Power Purchase Agreements and sells in bulk to its own distribution divisions.

- GRIDCO is presently owned by the Government of Orissa, which is attempting to attract private sector participation in its distribution business. GRIDCO, OPGC and OHPC were incorporated under the Companies Act, 1956 in April 1995 and became full-fledged utilities with the transfer of assets on April 1, 1996 under the new Act. Their boards of directors and management were appointed in the course of 1995, including significant non-government representation on the boards and externally-recruited functional directors into the areas of finance, commercial and human resources development. Corporatization agreements were signed in March 1996, to further spell out the respective responsibilities of the Orissa government and its two new utilities.

- Private sector participation in distribution by way of management contract was tried out in the central zone. This was done for the following reasons: (a) it was envisaged that it would help bring down the losses (b) the management contractor would perform preparatory work required before private participation is invited (c) private parties may not be willing to make equity commitments till some confidence is gained in the functioning of OERC. However, the management contract signed between GRIDCO and BSES did not succeed due to operational reasons especially in view of inadequacies in staff related matters in the contract.

- GRIDCO is now compiling report of power supply interruptions exceeding a duration of 3 hours for submission to the OERC. It is also submitting 'Consumer Fraud Reports', which is a regulatory check on the non-technical losses. Unlike in Gujarat, there is no strong cooperative movement in Orissa. Hence the option of entrusting distribution activities to co-operatives was not considered.
- GRIDCO is presently in the process of privatization of distribution. The system has been demarcated into four zones for this purpose. RFQs (Request for qualification of bids) for privatization of the four distribution zones have been circulated in November 1997 and the process is expected to be completed by April 1999. With four new private distribution companies coming in place, GRIDCO's role would be narrowed down to a bulk purchase, transmission and grid operation service provider (in future private Distco's are expected to be able to buy directly from the generators).
- TERI is providing consultancy services to GRIDCO in tariff related matters. The next tariff application is to be filed shortly.

VISIT TO USA

In USA, the team visited the Federal Energy Regulatory Commission (FERC), the National Association of Regulatory Utility Commissioners (NARUCs) and the Argonne National Laboratory (ANL) in Washington DC during 7-10 November, 1997. The discussions helped in getting a better understanding of the trends of power sector reforms in USA and of the various structural and regulatory issues involved.

Visit to FERC

The FERC is an independent regulatory commission at the federal level within the Department of Energy (DoE). Its function is to oversee America's natural gas industry, electric utilities, hydro electric projects and oil pipeline transmission system. The Commission was created on October 1, 1977. Insofar as electric power is concerned, its functions vis-a-vis those of the DoE are demarcated as under:

Federal Energy Regulatory Commission (FERC)	Department of Energy (DoE)
Reviews wholesale and interstate transmission contracts	Proposes regulations to FERC
Mandates and approves prices for	Advises President on energy legislation in

wholesale transmission service	Congress
Licenses hydroelectric projects	Manages Federal generation and transmission facilities
Collects transmission and financial data	Approves power exports & international interconnections
Maintains uniform accounting system	Finances some research and development

FERC also keeps an oversight of related environmental matters also.

There is no conflict in the roles of FERC and the State Regulatory Commissions (SRC) which are constituted under respective State laws. SRC's functions are restricted to State-level facilities excluding hydro generation. These typically include establishment and enforcement of retail franchise areas and service quality standards, reviewing and approving of retail tariffs, reviewing investment decisions, monitoring and approving planning, establishment of rules or guidelines for competitive bidding solicitations, reviews results of competitive bidding solicitations and licensing of non-hydro generating facilities and transmission facilities. FERC is not an Appelate Tribunal for the SRC.

Independence of FERC is achieved through the following measures:

- Commissioners are appointed by President but confirmed by Senate of the 5 Commissioners: Chair designated by President; only 3 can be from same political party. This ensures independence from undue political party influence.

- Budget is approved directly by Congress; No executive (President or DoE) review of decisions. This ensures independence from the President, Federal departments, and Congress.

- No private discussions are entertained with any parties to the case; certain restrictions are imposed on the Commissioners and staff regarding stock ownership in jurisdictional firms; gifts from entities with cases before the Commission; and future employment with jurisdictional firms. These ensure Independence from the electricity industry.

It was further mentioned that under the authority of the Omnibus Budget Reconciliation Act of 1986 and other laws, the Commission recovers all its costs from regulated industries through fees and annual charges. Revenues thus generated are then used to offset the congressional appropriations which result in a net cost of zero dollars to the treasury. Thus, the users and beneficiaries of the Commission's services and not the general tax payers are paying its operating cost.

The Commissions are dominated by lawyers and it is seen that they place a high premium on openness of procedures. How decisions are made and reviewed in FERC. was also briefly explained. The salient features of the process are shown in Annexure II. As may be seen there from, FERC follows typical court procedures. Special emphasis is therefore required to avoid legalistic delays. It was mentioned that this indeed is a matter of concern.

The Commission generally meets twice a month. During the FY 1996, the Commission had ordered certain sweeping changes for the electric utility industry. On April 24, the Commission issued two orders. The first was Order No. 888 entitled *Promoting Wholesale Competition Through Open Access Nondiscriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities.* This rule requires all public utilities that own, control, or operate transmission facilities to provide nondiscriminatory open access transmission services and provides for a stranded cost mechanism to aid in the transition to a more competitive industry. The new rule went into effect on July 9, 1996. The second, Order No. 889 entitled *Open Access Same-Time Information Systems and Standards of Conduct (OASIS),* requires utilities to develop an Internet-based bulletin board system that will provide information about the availability of transportation capacity on transmission lines. Bulk of the power supply facilities in US are privately owned. Many are vertically integrated utilities but the trend is towards vertical unbundling of functions and opening up the market for competition. The State of California is under the process of making some radical reforms to its electric utility industry. In this context, it was mentioned that there are invariably public debates on the type of re-structuring needed in various States. The percentage of generation from independent power producers is however presently limited. In 1995, it was only 9% but it is expected that this would go up in the next few years.

The existence of multiple players has brought out the need for an Independent System Operator (ISO) to manage the grid. The Commission is offering the guidelines for many ISO(s) that are subject to Commission's approval. Many other things, the maintenance and governance of ISO(s) should be independent of any individual utility or market participant and ensure fair access to the transmission system. Recently, FERC has recognised PJM as an ISO.

FERC is encouraging Regional Transmission Groups (RTG) to help implement the transmission services and resolve transmission issues on a regional basis. The Commission has expressed willingness to give deference to agreements reached voluntarily in a approved RTG. This could provide substantial benefits to the public as well as to the Commission by relieving regulatory burdens and by providing a forum for consensual agreements within new regional institutions. Till end of FY 1996, the Commission had recognised 4 RTGs.

Visit to NARUC

NARUC is a quasi-governmental non-profit corporation composed of governmental agencies engaged in the regulation of public utilities and carriers. Its primary mission is to serve the consumer interest by seeking to improve the quality and effectiveness of public regulation in America. The Federal courts have recognized that the NARUC is a proper party to represent the interests of its State members. Voting membership in the Association is restricted to its officers and to commissioners of State, Federal and Territorial commissions "engaged in the regulation of public utilities or carriers". NARUC has an Executive Committee and 8 standing Committees on administration, communications, electricity, energy conservation, finance and technology, gas, transportation, and water. The basic purpose of the committees and subcommittees is to initiate and complete studies to increase the knowledge of the regulatory community and to promote uniformity therein on subjects within the jurisdiction of the committee and subcommittee, and to recommend policy positions to the Executive Committee. Each one is required to prepare a written report on its activities and recommendations to each annual convention.

During the discussions, it was explained that while 12 of the Regulatory Commissions have elected Commissioners, in the others, they are appointed. 6 Commissions require that one member must be a qualified attorney; in all other cases, there is no specific requirement by law of professional qualifications. While persons with law background dominate, there are also persons dealing in the economics, consumer affairs and even farmers. The tenure of SRC members vary from State to State but it is mostly in the range of 4 -6 years. In some States, there is one year cool off period requirement for a Commissioner to take up another assignment while in some others, the only restriction is that one should not join the utility he had regulated. It was also brought out that although retail competition is expected by the year 2002, there are certain questions about its political acceptability.

NARUC also performs certain educational functions. A one-day policy training program for commissioners is held at each of the winter and summer committee meetings, a one-day new commissioners forum is held at each of the winter meetings, and introductory regulatory training programs are held twice a year at various sites. These programmes are generally conducted at some of the leading universities in the State. The Indian team was/told that the power utilities in India could also take advantage of these programmes.

NARUC has also established a National Regulatory Research Institute at the Ohio State University with the mission objective of providing member commissions with technical assistance and timely high level policy research on regulatory issues.

Visit to ANL

ANL is a leading center for research and development related to energy and environment issues and technologies. It is under the Department of Energy (DoE) of USA and has been providing advice to the government on various long-term issues. Although owned by DoE, it is operated by the University of Chicago. The laboratory has been in existence for over 45 years and has an interdisciplinary team of specialists.

The discussions mostly centred round the energy scenario in USA and its impact on the reform process. It was brough out that electricity tariff varies over a wide range across the USA depending upon the primary source of power and the States which have higher tariff are the first going in for reforms. Presently restructuring is most active in California where the tariffs are the highest and the market is being totally opened up. There is no doubt an apprehension in this context on part of the north-western states (rich in hydro power) that the cheaper hydro power may start getting contracted to California and this turn could lead to an increase in tariff in the States. A cryptic remark made by Dr Snyder was "while some barriers are being removed, some are being erected".

The other interesting point discussed was the challenges on the transmission front while opening up the market. Hitherto transmission systems were optimised based on security considerations but where these systems are being used in an open market environment where the objective is to optimise the commerical transactions, it could lead to problems of grid security. It appeared that the transmission system planning is in a state of flux.

VISIT TO UK

In UK, the team visited PowerGen, National Grid, OFFER, Department of Trade and Industry and the Science Policy Research Institute during 12-14 November, 1997. The visits helped in getting a better understanding of the British Electricity industry including the reforms that have taken place and some of the issues related to privatisation of the industry.

Structural Aspects

The salient features of the structural aspects of the electricity industry formed a common background theme for discussions during all the visits. The salient points brought out were:

- Restructuring of the electricity industry in England and Wales took place during 1990, the industry was subsequently privatised in late 1990/early 1991. The Central Electricity Generating Board's assets and liabilities were transferred to four successor companies comprising three licensed generating companies namely, National Power, PowerGen and Nuclear Electric (retained in the public sector unitl 1996) and one licensed transmission company: the National Grid Company. The twelve area boards were succeeded by the Regional Electricity Companies (RECs) which are licensed to distribute and supply electricity within their authorised areas. RECs have a statutory obligation to supply electricity to all customers within their area on request. The RECs are also obliged under their public electricity licences to purchase electricity as economically as possible. Seven of these companies have since been merged within larger groupings. Three have been purchased by American electricity groups, two have merged with water utilities, one has been bought by a British electricity company and one by a British diversified industrial group. This shows that the complexion of the RECs has changed over the years and majority of them are not pure distribution companies.

- Privatisation has evolved over a period of years as under:

Sept 1987	First meeting
Feb 1988	White paper (proposal)
July 1989	Electricity Act (law)
Oct 1989	Nuclear withdrawn from privatisation
Mar 1990	Creation of limited companies ("Vesting")
Nov 1990	Sale of shares in distribution companies
Feb 1991	Sale of shares in generation companies - first 60% sold
Mar 1995	Second 40% of gencos sold
Dec 1995	NGC floated on stock exchange
July 1996	British Energy (nuclear) privatised via flotation

- There is a pool mechanism for trading electricity. The pool does not itself buy or sell electricity, but creates a market place to which both buyers and sellers have access and in which the price of electricity is determined by competitive bids. Sales and purchases of electricity in this market are made between participating generators and suppliers according to pool rules. These rules govern the calculation of payments due to and from pool members. All licensed generators and suppliers have to be pool members. Pool prices can vary quite significantly over short periods of time and are therefore often hedged by contracts called Contracts for Differences (CfDs) between generators and suppliers. These help provide stability of income and cost. Some 90% of electricity sold through the pool is covered by CfDs, it is these contracts therefore rather than the pool price which predominantly determine the prices paid by the customer.

- Transmission, the bulk transfer of electricity around the country, and distribution, the delivery of electricity to consumers, are natural monopolies. Competition is developing in generation and supply. New entrants are coming into the generation market and since 1 April 1994 customers with peak loads of more than 100 Kilowatts have been able to choose their supplier.

- National Grid has moved into telecommunications businesses. ENERGIS, a national Grid Company subsidiary, was granted a telecommunications licence in February 1993 and will provide a telecommunications service through fibre optic cables strung along the wires of the NGC transmission network to residential and commercial customers. A number of Public Electricity Suppliers are also involved in telecommunications businesses. Scottish Power and Hydro-Electric have also been awarded licences and are investing in a fibre optic regional/trunk network, aiming to provide a range of telecomminications services particularly to commerce and industry. A transmission licence has also been granted to IONICA, whose stake holders include Northern Electric and Yorkshire Electricity. Norweb, East Midlands, SWALEC and SWEB are all involved or seeking to become involved in telecommunications ventures.

Visit to PowerGen

The visit to PowerGen at Coventry helped in getting the view point of a major generating company on the reform exercise that had taken place in UK. The following points were noted during the discussions.

- Restructuring went off well with the unions, although there were some problems with middle management.

- Restructuring has led to diversification of fuels. Competition is building up and the share of coal based generation is declining.

- The transition to commercial organisation involved the following:

  Cultural change (streamlined management, devolved decision making, staff empowerment)

  Customer led focus

  Developing new commercial skills (acquiring new skills [energy trading]

  Refocusing technical skills.

- Privatisation has yielded the following benefits:

  PowerGen has become a commercially driven, customer focused organisation

  It has started competing in UK and overseas markets

  Functioning is much less open to political intervention

  Flatter management structure and devolved decision making have made the organisation more dynamic

  Safety and environmental performance have improved.
  Productivity has improved. There has also been staff savings.

- The contracts for power supply have varying durations from days to 5 years. The generating companies prefer long term contracts as it would minimise their risks.

- While there are some moves towards merger of generation and supply companies, this is not being encouraged by the regulator. It is, however, felt that only 4-5 majors left in the competition as time passes.

Visit to the National Grid Company (NGC)

Visit to the NGC office at Coventry was to learn about its experience as a monopoly entity. The salient points made out were:

- NGC's role is to develop and maintain an efficient, coordinated and economical transmission system and facilitate competition in generation and supply giving due regard to the environmental aspects. It does not trade electricity and has no obligation to supply.

- The tariff for the use of system and pre-vesting connections is regulated as per the RPI-x price cap formula. However, charges for new connections are regulated based on a reasonable rate of return and system support charges are generally negotiated.

- Prior to privatisation, the focus was on engineering not on customers, there was lot of bureaucracy and the working methods were often inflexible. Nevertheless, the public service obligations were well served.

- The challenges at privatisation were to (a) create a new company, (b) turn the focus on to the customer, (c) respond to new financial demands, (d) develop new methods of working, and (e) find new unregulated sources of profit ensuring at the same time that the lights are kept on.

- The new company now works with flatter structures and streamlined corporate centre. There is 40% less employees after privatisation.

- Restructuring and privatisation has for customers provided the benefit of lower cost (see Fig. 1) improved service and better safety. The disconnections of domestic customers (for non-payment) have come down to a few hundreds from over 80,000 in 1990-91. Similarly, the accident rate per 100 employees has come down to less than 0.9 from 2.4 in this period.

The functioning of the pool was also explained in detail. In this context, it was mentioned inter-alia that bids are received from generators by 10 am for the next day and the system bid prices are published by 4 p.m. It was also noted that even in the case of an IPP selling power directly to a retailer, it would have to pay system charges to NGC. There would, however, be no connection charges in such cases.

Visit to the office of Electricity Regulation (OFFER) and the Electricity Directorate of the Department of Trade and Industry (DTI)

These visits enabled the team to get a clear appreciation of the functioning of OFFER and the governments' relationship with the electricity industry. The following points were noted during the discussions:

- The government was responsible for passing the framework of legislation and selling of the companies. It is now concerned with regulating the industry through DTI, OFFER and Environment Agencies; promoting competitiveness, monitoring development of industry. It also considers whether further legislation is needed. Employment and training are promoted by Department of Education and Employment.

- OFFER is headed by the Director General of Electricity Supplies (DGES), who has statutory duties to promote competition in generation and supply and to look after the interests of consumers. He is responsible for ensuring that all licensees adhere to their statutory and licence obligations. The DGES is also responsible for overseeing the working of the electricity market and for proposing changes to this if he believes the market is not working satisfactorily. He may implement changes by agreement or in the case of wider concerns refer the matter to the Monopolies and Mergers Commission (MMC). This body would carry out further investigations and make recommendations to the relevant Ministry (currently Trade and Industry) who makes the final judgement. In practice, MMC investigations can be almost open ended process in which MMC is free to conduct a wide ranging enquiry. This can be very disruptive to the operation of the business and the outcome difficult to predict. The risk of "something worse" being recommended gives utilities strong incentive to restrain from challenging decisions of the regulator.

- The DGES is appointed by the Secretary of State for a period of 5 years and is accountable to the Parliament. There is no bar on his reappointment on expiry of term. The DGES has two Deputy Director Generals and regional offices to support him. He also takes special advisors.

- The DGES has taken a number of actions to improve the market. In the field of generation he has obtained undertakings from the two major generators that they will seek to dispose of a total of 6000 MW of coal or oil fired plant. This would double the amount of independent capacity on the England and Wales network. The combined market share of National Power and Power Gen has fallen since privatisation from a high of 78% to about 60%, and this is expected to fall further (to below 50%) as new entrants enter the competitive market in generation. As the electricity companies have achieved savings in their costs, the DGES has tightened price control formulae:- (for Transmission from RPI+0% to RPI - 3%, for Distribution from RPI+0<X< 2.5% to RPI-15% in 1996, RPI - 11% in 1997 and RPI - 3% thereafter, and for Supply from RPI+0% to RPI-2%.) He is currently reviewing the Transmission price control for a further period from 1997. The regulator also sets standards of service, monitors the same and publishes the results. There is no system of public hearing as in USA but a process of consultations is generally followed.

- The Government holds special shares (called `golden shares') in many newly privatised companies which ensure that these companies cannot be taken over without its consent. Some special shares, such as those in the Regional Electricity Companies, are retained for a few years after privatisation in order to allow the management to establish a track record, others, such as that in the National Grid, are retained indefinitely where there is a national interest or a market need to ensure the company's continuing independence.

- As the systems move towards a pool based fully competitive market, it would be necessary to impose mechanisms which oblige the competitors to ensure that there is sufficient reserve margin to ensure security of the grid. This is because the criterion of the generator to retain or retire a power station (or to build a new one) is not whether capacity will be needed to keep lights on but whether it will make profit. If the plant is not expected to operate profitably the generating company has an obligation to its share holder to retire it

Visit to Science Policy Research Unit (SPRU)

The SPRU established in 1966 at the University of Sussex, Brighton, is the largest independent power policy group in UK. It is helping the parliamentary system through research on leading national and international energy and environmental issues and their implications for public policies. The faculty of the Unit has also authored an excellent book "The British Electricity Experiment, Privatisation : the record, the issues, the lessons." The discussions at SPRU were very enlightening and helped in getting an independent and critical appraisal of the reform exercise in the country. The salient points brought out are presented below.

- Privatisation was a centre piece of the policy programmes of the conservative party in power under Mrs Margaret Thatcher in the 1980s. The Government firmly believed that public ownership inevitably led to inefficiency. It also wanted to control power of large trade unions, especially in the coal-mining sector. Sale of the existing assets was also of considerable importance to the treasury. In fact, this was a necessary step to maintain public services without tax increases.

- The government had adopted a cautious but committed approach in privatising the infrastructure industry. British Telecom was the first touched as it did not raise the same social issues and political risks as did the other utilities.

Conditions were favourable when the government launched the privatisation drive. For example, adequate infrastructure in power (generation, transmission and distribution) and gas existed, the demand growth was modest, public tariff was fair, there was a well established social security system (hence no need for cross subsidies) and there was banking liquidity for the industry. Above all there was a strong political will. Still the whole exercise took time and it was an evolutionary process. This shows that it takes time to introduce privatisation even where the environment is conducive.

The market pool concept presently operating in UK is quite complicated. Infact, the market forces operating in the pool are limited in view of the overriding effect of the contract prices in the final settlement of transactions. It is likely that generating companies which have established contracts can bid artificially low prices and thereby prevent new entrants getting into the market. Similarly, when the loss of load probability (LOLP) is high, it could lead to enormous cost increases in the system marginal prices. Accordingly, a fundamental review of the pool is being considered.

The structure of the industry is getting altered due to takeovers and mergers. In this context, it appears debatable whether sustainable price competition would be achieved after the opening up of the domestic market in 1998. If competition in generation is not established, competition only in supply element may reduce the domestic tariff only slightly. That would hardly be worth the political risks involved or possible numerous "losers" due to "cherry picking" of profitable customers and possible decline of the industry's, social obligations towards the most vulnerable group of the society.

The Labour party had in 1992 declared that they would nationalise NGC. Since they did not come into power, this did not happen. On the regulatory side, the view of the Labour party is that decisions are not transparent and that the customers' views are not adequately taken note of. The party feels that there is need for improved transparency.

A vertically integrated system is continuing in Scotland primarily because of a) difficulties in establishing competition in generation in view of its smaller size and dominance of nuclear plants which are to be given priority in despatching b) distribution continues to be under one entity c) a large majority of the Scottish electorate do not favour this.

Privatisation in Ireland was initiated only a year after the completion of the new structure in England and Wales. This was because tariff levels in Ireland had to be maintained at levels not much higher than those in England which was difficult in view of the system condition. (it had no interconnections with England and the 300 MW link to South Ireland was temporarily abandoned because of terrorist action) and lack of indigenous coal industry. The privatisation process was therefore preceeded by installation of an electric cable and building of a new gas pipe line from Scotland. The new generating companies were also protected by long term contracts. How power pools can be introduced in this environment is being looked into.

VISIT TO FRANCE

In France, the team visited the offices of Electricite de France (EdF) and held detailed discussions on its present structure and regulation and the changes being brought about to comply with the European Union directives. The visit also helped in getting an insight into the lessons learned by EdF on distribution privatisation projects in other countries. List of officers met is at Annexure - I.

Structure

The electric supply in France is unique in many respects. EdF, a state-owned company, meets 97% of the country's power requirements. It has a vertically integrated structure owning generation, transmission and distribution facilities. The installed generating capacity was 99,500 MW as on 31st December, 1996. Nuclear power has a predominant share of nearly 59% in this. France is surplus in power and had exported nearly 70 TWh to other countries, mostly to UK, Switzerland, Italy, Benelaux countries, Germany and Spain. The growth of electricity consumption has slowed down in France. The low prices of fossil energies and major technological progress are leading to the development of new forms of decentralized generation. Customers would like to have more personalized relations and services. Citizens and communities have expressed new expectations with regard to major companies and the public services.

Regulation

The electric supply industry in France is regulated by the Government. Infact, 4 Ministries namely, Ministry of Finance, Ministry of Industries, Ministry of Environment and Ministry of Labour coordinate the decisions of EdF. Ministry of Finance is concerned with investment and financial policies (which has a bearing on the level of debt, tariff which will have an impact on inflation) and wages (which is a sensitive issue). Ministry of Industry is concerned with energy policy, security of supply, competitiveness of national industry, nuclear safety and R&D. The Ministry of Labour is primarily concerned with employment security, while the Ministry of Environment is concerned with environmental issues. Inspite of these multiple linkages involving a number of Ministries, it is seen that EdF is working on strictly commercial lines since 1946. Since 1989, EdF has been given greater control over its financial affairs and has been making payments to the government from its profits.

The principal regulatory instrument is the corporate contract entered into between the State and EdF for a period of four years. The copies of the contract for the year 1993-96 and 1997-2000 were made available to the team members. This document specifies the main orientations that EdF will give to its action in the medium term. They are supplemented by the guidelines described in the Corporate Strategic Plan. It also includes mutual commitments of the signatory parties for the four-year period. These commitments are made under broad reference assumptions and can only be called into question by a significant change in the Company's environment.

The document lays special emphasis on sustainable development, improvement of performance, reduction of tariff rates, development of services, R & D activities, human resources management and conquering of new markets abroad. The 1997-2000 document also talks about preparation of new regulations within which EdF will remain responsible for the balanced and optimised operation of the French power system and for providing services of the quantity and quality expected by the customers. The document also outlines objectives in financial management and remuneration to be paid to the government by EdF. Further, it provides for a systematic follow up as under:

Every year, EdF's managers will present the following to the Public Authorities: in March, the results of the past year, including the follow-up of the Public Service Contract, which cannot be dissociated from the Corporate Contract itself: in July, the economic and financial prospects for the next four years. In autumn 1998, the public authorities and managers of EdF will meet to take stock of the situation halfway through the execution of the present Contract, for the purpose of drawing the implications of setting up a new institutional framework and the following in particular: (a) decide on the changes in the tariff system to be implemented as of 1999; (b) note the deviations likely to arise at the end of the period compared with the objectives of the present Contract and to agree upon the changes to be made in these objectives for the years 1999 and 2000, particularly for the adjustment of future tariff reductions, as mentioned previously.

Appended to the contract are performance indicators and tariff reduction guidelines. One of the important aspects noticed in these contracts is that the emphasis is on setting global objectives. The indicators relate to global corporate indicators, economic, technical and commercial performance indicators (separately for generation-transmission activity and distribution activity) and work productivity in EdF.

There are three categories of tariff levels namely blue (LT upto 36 KVA), Yellow (LT 36-250 KVA), Green (MV, HV, EHV: more than 250 KVA). Each category has further categorisation within it. The important point here is that the type of usage is not the criterion for the tariff category. The customers have also got various options available under each category. It was interesting to note that the electricity rates in France are less than most of the other European countreis. For example, in Germany, tariff for industrial customers is higher by 24-34% while in UK it is higher by 37-44%. The relatively lower generation cost is to a large extent attribhutable to this. The 1997-2000 contract has set a guideline for average tariff reduction of 3.5% in 1997 and 2.25% per year thereafter at constant fresh frames.

European Directive

Under the European directive, certain changes are taking place in the structure and functioning of EdF. Detailed discussions were held on the requirements of EU directive and EdF strategy in complying with these. The following points were noted in this context.

- The directive concerning common rules for the domestic electricity market was adopted officially in December, 1996 by the European Parliament and the European Union Council. It is an agreement on the part of 15 countries and is now operational. The member governments have two years to transpose it into their national legislation. Belgium, Ireland and Greece have been given time upto 1999-2000.

- The compulsory requirements under the directive include authorisation of IPPs to set up before plants, facility for consumers to select suppliers, unbundling of accounts of generation and transmission and establishment of Independent System Operator. There is no federal regulatory plan for Europe as a whole.

- The main objective is creating certain amount of commercial freedom in the electric sector throughout the European Union. Eligible customers would have choice of the supplier within the country or outside. The number of customers considered to be eligible will gradually expand with a calender defined by the directive. In the case of France, it was indicated that the eligibility level would be 250 Gwh/year in 2000-01 and it will come down to 8 Gwh/year by 2002-03 (amounting to about 33% of customers).

- The implementation of the directive is subject to re-examination in January 2006.

EdF experience in distribution privatisation in other countries:

EdF had been associated with privatisation of distribution systems in a number of countries . The presentations made by EdF engineers covered various levels of private sector participation including the success factors involved in each of these as well as their experience in Argentina and Ivory coast.

Five types of private sector participation were discussed:

Management Consultancy: This is the lowest level of private sector participation. The private party is engaged to carry out an audit of the company's management and make recommendations concerning possible improvements. Normally, there is no responsibility on the part of the private party for the implementation of the recommendations. The private party is paid as in the case of a consultancy contract.

Twinning: In this scheme, the private party provides support in the day-to-day running of the utility through the presence of on-sight experts without anyone getting into the company's hierarchy. The objective is tranfer of know-how for the efficient management of the system. The private party is paid on the basis of resources required for performing this task.

A Performance Contract: This is an agreement through which the operational control of the company or part of the company is delegated to a private operator. Some of the key decisions of the company are occupied by the personnel from the private party. But it does not own the installations or control the investment decisions. The remuneration is generally linked to the management improvement criteria (billing rate, recovery rate, etc.) or quality criteria (availability rate, etc).

Operations Contracting (Leasing): In this scheme, the private party is given the right to operate the installations. He provides the requisite level of service and quality of supply and also carries out maintenance as per terms of reference of the lease . The private party pays a rental fee to the local authority.

Total Privatisation: This involves transferring operation, rights and assets to a private party who would be responsible for operating the installations and for making of future investments.

It was brought out that whatever the type of operation, four generic success factors are:

- Establishing good lines of communication between the operator and the company in mutual respect of cultural differences.

- Continuous assessment of the project's progression in order to detect potential problems and identify possible solutions as soon as possible.

- Good understanding of each party's role : the local company, the external operator, the financial backers.

- Constant support from the operator to ensure that the company benefits fully from its experience and management techniques. This support should not only be "tactical" short term support dealing with urgent issues, but equally long term strategic support aimed at strengthening the company for the future.

The factors which need to be carefully evaluated in deciding the most appropriate type of participation are:

- the degree of motivation of the government, the local authorities and public opinion to accept to hand control of the local energy sector to an operator
- the impact of such activities on the country's economy.
- the degree of confidence in the country's political and economic situation .
- the extent to which the State is involved in the energy sector
- the support which may be obtained from financial backers in the promotion of the form of assistance proposed
- the technical, economic and financial situation of the company in the present and in the future according to different scenarios.

Some of the essential pre-requisites for successful implementation of a privatisation programme are:

- clear cut objective and strong political will on the part of government.
- well defined legal framework protecting both public and private interests (including trade and tax policy, labour legislation, etc.)
- well defined power sector organisation (ownership structure, regulatory body, etc.)
- Transparent tariff structure

Ivory Coast

The Ivory coast witnessed a major power sector reform in 1990 when the government decided to restructure and privatise the public sector entity EECI by granting the license for operation of generation, transmission and distribution to a new firm CIE. The result was the separation of asset ownership and management from the operation of the public service concession EECI. Ivoirian investors hold a 49% share in the CIE, divided as follows: State: 20%; private: 24%; joint investment fund for staff: 5%. The balance 51% share is held by a French joint stock company SISP in which EdF has shares.

The type of private sector participation was operations contracting with the objective of bringing down the sale price of electricity ensuring at the same time restoration of the financial balance of the sector. The results are reportedly very satisfactory both from the point of view of the sector and the customers. It is however to be noted that the experience of Ivory Coast may not be of direct relevance to India since it is a small rural country with a low population density and a modest installed capacity of less than 1000 MW.

Argentina

The experience of Argentina provides a very interesting study of the privatisation programme. At the end of the 1980's, all of the actors of the power sector came under the control of the Public Authorities, either at national or provincial level. There were 3 major producers and five generation, transmission and distribution public utilities. The coordination and regulation of electricity exchanges was being carried out by a National Load Dispatching Centre managed by one of these utilities whose activity extended throughout the country. The sale tariffs were decided by the governments keeping in view social objectives which reportedly was depriving the system's actors of the resources needed for investments and even, in some cases, for day to day operations. This led to a steady decline in performance of the sector; in the summer of 1988-89 there were daily 6-hour rotating voltage interruptions in Greater Buenos Aires. The Management of the companies also suffered from over-staffing, lack of human resources policy, etc. This crisis situation led the public authorities to create an Emergency Committee in 1990 which would set up a new power system.

The new system was to be based on three basic principles: a) open competition in the electricity generation field; b) third party access to the network; c) strong transmission and distribution regulations. The implementation of the system was to be accompanied by a full privatisation programme along with establishment of suitable regulatory mechanisms. In 1991, the Government of Argentina decided to adopt the new model and suitable legal framework was created. The activities of generation, transmission and distribution were un-bundled and regulation of the system was entrusted to two newly created entities namely ENRE (which would ensure compliance with the Act and specifications in particular with regard to consumer rights, quality of service, correct application of tariff, rules for competition, etc.) and CAMMESA for managing the transactions between the actors of the bulk supply market. The restructuring resulted in some 30 producers, single operator for the 500 KV transmission network, 5 operators of regional transmission network, some 20 distributors and some 100 major users. The privatisation of SEGBA, the first company within the power sector to be taken out of the State's hands took place in several stages but at a steady pace, during 1992. The SEGBA was divided into 8 entities including 3 distribution units and 51% of the shares of each of these companies was dis-invested. It was interesting to note that the transfer of ownership to successful bidder took only about 4 and a half months after the approval of the terms and conditions for the international call for tenders. EdF alongwith a few other companies had formed a consortium called EASA which won the contract for one of the major distribution units EDENOR. The company was taken over in September,

1992. According to EdF, significant improvements have been achieved as per data given below:

Challenge	Situation in 1992	Situation in 1994
A risky financial operation	Losses amounting to 52 million USD in 4 months	Economic balance recovered in 1994. The first month of 1995 showed a positive result of over 8 million USD.
An uncertain economic environment		Sales upturn (excluding recovery of losses) of about 7%.
A worsening social problem: the theft of electricity	30% losses. When Edenor purchased 100 kW, it only billed 70 of this amount	Losses of 20.2% at the end of 1994. This result was obtained by means of an anti-fraud system employing more than 1000 persons.
What will happen with the poor districts? Will the distributor have to replace the Public Authorities or will he have to cut off the power supply?	300,000 fraudulent users in more than 80 shanty towns and underprivileged districts. The situation is extremely tense.	Outline agreement signed with the State, Buenos Aires Province and the Municipalities, which calls for the balanced take over of the power supply to these districts. The application of this agreement meant the incorporation of more than 250,000 customers into the billing file.
Customers late in paying their bills	The amount of arrears represents about 60% of monthly billing.	This indicator has deteriorated, since the value of this portfolio is now 1.5 times monthly billing.
In the opinion of the Governors and the public, Privatisation = service improvement	Nearly 3.5 hours of voltage interruption per transformer. High sensitivity to storms: some districts have to do without electricity for 3 days.	Less than 0.5 hour for the same indicator. The maximum voltage interruption due to an incident occurrence does not exceed 24 hours.
And also: privatization = cheaper electricity		kWh selling price the least expensive in Argentina (7.5 C$/kWh versus 20.8 C$/kWh in Cordoba).
"Ethical" Problems	Many complaints and	A general plan to raise the

	denunciations of all kinds and from all origins concerning internal/external corruption.	moral standards of the Company as a whole. The number of complaints has dropped. EDENOR has had to dismiss 50 persons, from clerical through to executive levels, involved in irregularities.
Overstaffing	6,500 employees	4,164 employees The role of those in positions of responsibility is clearly defined in writing. Management contracts lay down the objectives of each individual. The follow-up of results is ensured by setting up a management reporting system.

MAIN FINDINGS

The study tour was very informative and purposeful. Senior officers in the organisations visited were quite open in giving information and in appraising the reform programmes implemented in their countries. A gist of some of the main findings is given below:

1. The Orissa Electricite Regulatory Commission is playing a pro-active role in the development of the power sector in the State. It has accomplished a number of tasks and is paying special attention to consumer interests and quality of supply. It is however noted that a number of Regulations are yet to be prepared.

2. The experiment of management contract did not succeed in Orissa and it is presently moving towards privatisation of the distribution system by demarcating it into four zones and going in for a joint venture approach. The outcome should be of interest to other utilities.

3. The driving forces behind the reforms in USA and UK have been the desire to achieve better efficiency, lower tariffs and improved service to the customers. The thrust of these reform programmes is towards introduction of competition in various subsectors of the industry. In France, the state-owned sector is well regulated by the government ensuring satisfactory levels of efficiency and service. Nevertheless, here too a need is felt for gradual opening up of the electricity market so as to comply with the directives of European Union. In contrast, the drivers for reform in some of the African and Latin American

countries, whose experience was presented by the EdF engineers, were the need to improve utility performance and bring in additional finance and better management so as to effectively bridge the demand-supply gaps.

4. The restructuring model and regulatory mechanisms vary from country to country and are invariably influenced by the traditions and culture of the existing electric supply industry, resource endowments, state of economy and importantly the perceptions of the political party in power. Infact, in USA, the structure of the industry varies from State to State and there is often public debate and discussions before adopting any new model. (Most wide-scale reforms are presently taking place in Argentina). The constitution, selection of members, their tenure, mode of regulation, etc. of the regulatory agencies in USA and UK also make some striking differences whereas in UK there is a single-person commission for the sectoral regulation of country as a whole, in USA there are two levels (federal and State) of multi-member emissions doing multi-sectoral (electricity, gas, hydropower oil pipeline transmission systems) regulation.

5. The US regulatory system is mostly based on allowable rates-of-return on an agreed value of assets employed in delivering the service. The drawback with this is that it does not provide for incentives for improving performance. There is also a risk in that there may be a tendency on the part of investors to 'gold-plate' the system so as to increase the rate base. From the investors point of view, this presents a different form of concern; there is no guarantee that he will be allowed to recover all the costs since it is subject to interpretation of the regulator. The price-cap formula of regulation practised in UK provides for efficiency incentives. It's drawback is that it may not provide encouragement for making capital investments and may lead to potential problems of reduction in quality of service. Choosing an appropriate 'X' factor for the RPI-X formula at the time of tariff fixation is also not easy and there may be some subjectivity in judgement. In developing countries where the existing taiff structures are often not fair, introduction of this form of regulation would present added complexities.

6. In the US there is a high level of 'openness' in the functioning of the Regulatory Commissions, possibly because of the dominence of lawyers. The typical US rate case involves expert witnesses, cross examination, written briefs and counter briefs - all open to public view - and strongly resembles court procedures. This could, no doubt lead to 'regulatory delays'. In UK such 'openness' is lacking in the sense that there are no public hearings but only a consultation process.

7. The appelate body for regulatory commission decisions in USA is the higher court. In the case of UK the regulator must agree his or her decisions with the regulated body. If no agreement is reached, the matter gets referred to the Monopolies and Mergers Commission and based on its recommendations, the concerned minister gives the final judgement.

8. That the power sector in France is functioning well under State-ownership as a vertically integrated (generation, transmission and distribution) entity has to be seen in the context of the following facts : (a) it is allowed to operate as a commercial organisation with minimum political interference (b) the tariffs are already fair and relatively low compared to other countries (c) the four-year contract with the government lays special emphasis on efficiency improvements and there is a close follow up on this (d) In France, the growth of electricity consumption has slowed down.

9. The following could be matters of concern while opening up the market:

   - stranded costs (how to compensate)
   - Likelihood of mergers/demergers of companies (which could vitiate the competitive environment)
   - maintenance of adequate reserve plant margins (required from grid security point of view (which may not be in the commercial interest of the generators)
   - Transmission systems development (facilitating power flows based purely on commercial transaction ensuring at the same time requisite reliability standards)

   Suitable regulatory mechanisms and procedures are required to deal with these.

10. Unbundling the functions of generation, transmission and distribution is the general trend in power sector reforms. This is to provide better accountability of each of these activities and at the same time to generate competition in generation and supply. The wires business (transmission and distribution, if `supply' is separated from it) is invariably retained as a monopolistic activity. Competition in generation is most vital in bringing down the tariff since bulk of the cost of delivered price (55-60%) is attributable to this component. There is a trend to progressively introduce competition at retail supply level. This might however lead to adverse political and social impacts if effective competition is not there on the generation front.

11. The concept of power pools and trading through these is gaining interest. Practices in this regard vary from country to country and as in the case of UK the transactions are hedged by other contracts. Successful pool operation also requires a very reliable and well knit information system.

12. The countries which had decided on total privatisation have gone about it in a very systematic manner with a clear agenda for implementation and a strong political will to support it. The UK experience shows that even when the environment was conducive, it is seen that it takes time to introduce total privatisation. In this context, it is seen that short to total privatisation, other levels of private participation could also be considered. The most appropriate one should be chosen keeping in view the specific needs of the local situation

including the technical and financial profile of the utility and the policy of the government.

ANNEXURE - I

LIST OF OFFICERS WITH WHOM DISCUSSIONS WERE HELD

1	Dr Bernard Tenenbaum	Federal Energy Regulatory Commission (FERC) USA
2	Mr Charles D Gray	National Association of Regulatory Utility Commissioners (NARUC), USA
3	Dr Thomas C Smyder	Argonne National Laboratory USA
4	Mr Peter R Hughes	PowerGen International, UK
5	Mr Chris Wilson	PowerGen International, UK
6	Ms Sarah Walton	The National Grid Company plc., UK
7	Dr Gordon Mackerron	Science Policy Research Unit, UK
8	Mr Arthur Cooke	Office of Electricity Regulation (OFFER), UK
9	Mr David Shearman	Dept. of Trade & Industry, UK
10	Dr Graham Bryce	Dept. of Trade & Industry, UK
11	Mr Didier Gras	Electricite de France, France
12	Mr Monk Akehurst	Electricite de France, France
13	Mr Assaad Saab	Electricite de France, France
14	Mr Alain Burtin	Electricite de France, France
15	Mr Gilles Nicoud	Electricite de France, France
16	Mr Alain Tromparent	Electricite de France, France
17	Mr A R Mohanty	Orissa Electricity Regulatory Commission, Bhubaneswar
18	Mr D K Roy	Orissa Electricity Regulatory Commission, Bhubaneswar
19	Mr M Y Rao	Grid Corporation of Orissa, Bhubaneswar
20	Mr B C Jena	Grid Corporation of Orissa, Bhubaneswar

ANNEXURE - II

HOW DECISIONS ARE MADE AND REVIEWED IN FERC

Company Specific

Initiation

Company proposes rate
Customer or other entity (including a state commission) complains
Commission starts investigation.

Public Notice: opportunity for customers and others to participate

Commission decision: accept, reject or investigate

Informal conferences / formal evidentiary (adversarial) hearings

Resolution:

Negotiated settlement among participants, or
Commission decision

Industry Wide

Initiation

Informal discussion with industry groups (including state commissions)
Commission seeks ideas to resolve problem ("Notice of Inquiry") or
Commission proposes regulations or a policy change ("Notice of Proposed Rulemaking")

Public comments requested

Commission reviews comments

Commission decision:

Issues proposed rules or new policy (after inquiry)
Issues new rules (after proposal)
Abandons the initiative

How FERC Decisions are Reviewed

Appeals are made to judicial system (Federal Court of Appeals -- 2nd highest court)

No executive review (not Department of Energy; not President)

Decisions can be appealed by:

Any participant in a case (company, customer, state commission, etc.)

Any entity affected by an industry wide decision

Reasons for appeal

Commission exceeded its authority
Procedural mistakes (due process)
Substantive -- examples:

- Decision not reasoned
- Decisions unfair or discriminatory

Courts usually defer to Commission on technical matters.